Rail Accident Investigation Branch

Near miss with a track worker near Fishguard, Pembrokeshire, 4 January 2024

Important safety messages

This incident demonstrates the importance of:

- controllers of site safety remaining with their group to personally observe and advise them
- controllers of site safety setting up and maintaining safe systems of work in accordance with the relevant provisions of the Rule Book and ensuring that staff, including themselves, remain effectively protected from moving trains
- planners, responsible managers and persons in charge ensuring that the planning of work on or near the line accounts for relevant hazards at specific sites of work and that this is reflected in a safe work pack that is accurate, appropriate and specific to the task being carried out
- infrastructure managers ensuring that information provided to staff about site specific hazards is up to date and accurate.

Summary of the incident

At around 09:46 hrs on 4 January 2024, a train travelling at 53 mph (85 km/h) had a near miss with a track worker around 3.5 miles (5.5 km) south of Fishguard.

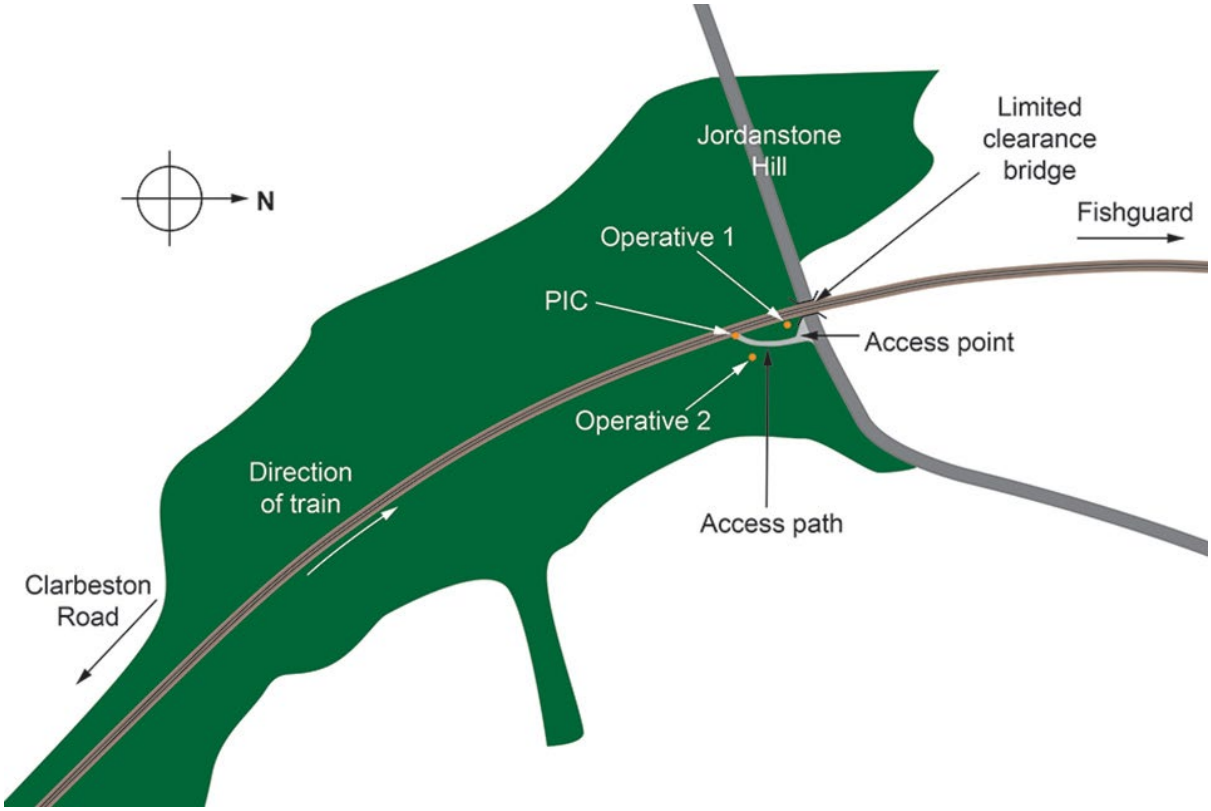
The track worker involved was acting as the person in charge (PIC) and controller of site safety (COSS) for a small team of agency staff undertaking vegetation clearance work for a principal contractor. The team planned to use a separated system of work, which requires staff to remain at least 2 metres away from the nearest open line. As the train approached the team's site of work, the driver saw the PIC on the track, sounded the train's horn, and applied the emergency brake. The PIC moved off the track and was clear of the train's path around two seconds before the train passed them.

The train driver reported the near miss to the controlling signal box at Clarbeston Road, and then continued their journey. The track workers stopped work at the site and travelled to another access point to undertake further work. They were then stood down after the near miss was raised with the principal contractor involved.

Cause of the incident

The incident occurred because the PIC strayed outside of the safe area that had been established as part of the planned safe system of work.

The railway at the site of work is a single track, bi-directional line, that runs between Clarbeston Road Junction and Fishguard Harbour station. The track is on a tight curve with vegetation further restricting the view for train drivers of the line ahead. An access point allows staff to enter the eastern side of the track. This takes the form of a roadside gate, situated next to a bridge that carries the railway over the road. From this access gate a grass path rises roughly parallel to the track, with railings on either side. At the top, the path and railings turn to face the track and lead into the cess (the area immediately alongside the track).



Simplified diagram showing the location of the access point and the three track workers.

The railway passes over the bridge around 60 metres north of this access point. The track over the bridge is classed as ‘limited clearance’, meaning that staff do not have a position of safety throughout the length of the structure.

Image from forward-facing CCTV taken from a different train, showing the access point in the foreground and the bridge in the background (courtesy of Network Rail).

The team was formed of three staff, the PIC (who was also acting as the COSS), and two vegetation clearance operatives, one of whom was acting as a 'site warden' when needed. All three staff were employed by agencies and were working for a principal contractor. Their work involved visiting sites across the area to clear 'strips' of vegetation from cuttings and embankments to allow earthwork inspections to take place at a later date.

A PIC is responsible for all aspects of safety on site. In this case, as the PIC was also the COSS for the group, they were also directly responsible for establishing a safe system of work to ensure that the team was protected from approaching trains.

The planning of the work was undertaken by the principal contractor, and a safe work pack (SWP) was produced for the work. The PIC was sent the SWP, and verified its contents, three days before the work took place. The SWP covered around four miles of track and included all the sites that were due to be visited by the group that day. While the access point used by the staff that morning was listed as the planned access point, the defined egress point was at the other end of the work covered by the SWP, around four miles away. Although the SWP stated that the staff could use 'various authorised access points within the mileage' to access each site, there was no specific SWP for each site, and no individual consideration of any risks that may be present at them. Although the SWP included an extract from the national hazard directory for the full mileage covered by the pack, this did not include any details of the limited clearance at the bridge.

The plan provided to the PIC required them to establish a separated system of work to protect the team from moving trains. The rules governing this system of work are

given in handbook 7 of the Rule Book (GERT8000-HB7, issue 8, September 2021) and require staff to be separated from any open line by a specified distance. No person should be allowed to enter any area closer than 2 metres to any open line, and a site warden should be appointed to ensure nobody strays beyond this limit. The site warden must have no other duties. If the PIC/COSS can ensure that no staff will enter the area within 3 metres of any open line, then the work can take place without a site warden.

The PIC met the two operatives at the access point at around 09:00 hrs on the day of the incident and briefed them on the planned separated system of work. The operatives signed the site briefing form to confirm their understanding of the briefing, with operative 1 also signing to confirm that they would undertake the duties of a site warden. The team then opened the gate and walked up the path to find the first strip of vegetation to be cleared. Operative 2 began working on clearing this strip, which was located between the path and the railway boundary, well away from the open line.

The PIC then asked operative 1 to walk along the cess in a position of safety to locate the next strip to be cleared, which was in the vicinity of the bridge. The PIC was not aware that this second strip was actually on the other side of the bridge, beyond the area of limited clearance. As operative 1 walked towards the bridge, they moved out of view of the PIC who had remained on the access path. This was due to a combination of the difference in elevation, the track curvature and vegetation in the cess.

At this point the train approached the site from the south. Upon hearing the train's approach, the PIC moved towards the track to get a view of operative 1's location. The PIC reported that they stumbled towards the track while doing this, which led them to stand on the track itself. The train's driver saw the PIC standing on the track, sounded the train's horn and applied the emergency brake. The PIC stepped back into the cess, with forward-facing closed-circuit television (FFCCTV) footage recovered from the train showing that they got out of the train's path around two seconds before it reached their location. The on-train data recorder showed that the train was travelling at 53 mph (85 km/h) when the emergency brake was applied. The train's driver then sounded the horn for a second time, as operative 1 came into view around the curve. Due to the curvature of the track and the angle of the camera, only the PIC was visible on the train's FFCCTV.

Once the train came to a stand, the driver reported the near miss to the signaller at Clarbeston Road signal box. The track workers left site almost immediately after the near miss without completing the vegetation clearance work or reporting the incident. The signaller reported the incident to route control, who tried to ascertain the identity of the track workers. By the time this was determined, the track workers had moved to another site, although the principal contractor, who had by now become aware of the near miss, stood them down before they restarted work.

The principle of keeping staff an appropriate distance from the open line is critical to ensuring safety when using a separated system of work. Since operative 1 was not acting as a site warden at the time of the incident, none of the group should have been within 3 metres of the open line. For the PIC to have got onto the track, they must have been much closer to the track than this prescribed distance.

The Rule Book states that a COSS (in this case the PIC who was undertaking these duties) must remain with their group to personally observe and advise. By sending operative 1 along the cess to look at the next vegetation clearance strip, the PIC was no longer able to observe their position or actions. This also led to the PIC moving towards and ultimately onto an open line when a train was approaching, to check on operative 1.

The SWP provided to the PIC did not include any details on the limited clearance at the bridge or that this would have prevented the group from walking to the second strip of vegetation clearance while maintaining the required separation from the open line. The PIC had also not visited site before the work had taken place, and so was unaware of the limited clearance until they reached site.

Previous similar occurrences

RAIB has reported on a number of track worker incidents and accidents with staff who were working within a separated system of work.

On 4 December 2012, a passenger train struck and fatally injured a track worker (fulfilling the role of COSS) at Saxilby, Lincolnshire (RAIB Report 21/2013). The group involved had been working at a site under a line blockage with an adjacent line open to traffic. Before the accident (during an initial line blockage), the COSS had implemented a separated safe system of work and appointed themself as the site warden. During a second line blockage, however, the COSS had not implemented a safe system of work and was struck by a train while working in the space between the two lines.

On 18 July 2022, a passenger train travelling at 24 mph (39 km/h) narrowly missed two track workers at Paddington station, London (RAIB safety digest 07/2022). This incident occurred because the track workers had moved away from lines that were blocked to railway traffic and were walking very close to an open line. The workers involved were not under the supervision of the PIC when the near miss occurred. This was a result of the PIC, who was also acting as COSS, not adequately planning the work or supervising the group.

On 15 November 2022, a passenger train travelling at 125 mph (201 km/h) narrowly missed a track worker on the West Coast Main Line near to Bulkington, Warwickshire (RAIB safety digest 02/2023). The track worker involved was the COSS for a team working nearby. The team had been working on a line which was closed to normal rail traffic, but with an adjacent line still being open. The near miss occurred after the COSS stepped outside of the safe area, moving towards the line on which the train approached. The COSS returned to a position of safety around two seconds before the train passed.

RAIB's website also includes a summary of learning from incidents relating to the protection of track workers from moving trains.